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ABSTRACT

An investigation was conducted to determine the extent of dissemination of the Research Utilizing Problem Solving (Rups) and Development of Higher Level Thinking Abilities (TABA) instructional systems developed by the Northwest Regional Laboratory (NWREL), the degree of conformity between the RUPS and TABA systems as developed and as used in the field, and the perceptions and extent of use of the two system. The TABA system was designed to lead participants through a series of learning experiences for each of three essential thinking processes: concept diagnosis, interpretation of data, and application of knowledge. The RUPS system was developed to prepare teachers to solve organizational problems in the classroom and to use innovative strategies for instruction. Data were gathered through a mail survey to both trainers and trainees who had participated in the programs. It was found that TABA respondents perceived themselves generally as in the programs. It was found that TABA respondents perveived themselves generally as utilizing their training with a high degree of regularity; training seemed to be used more by experienced teachers and less by inexperienced teachers. Analysis of the RUPS instructional system showed few differences among respondent sub-groups. It appeared that the TABA system was used more frequently in classrooms than was RUPS training. (Author)

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EVALUATION OF INSTRUCTIONAL SYSTEMS RUPS AND TABA

November, 1972

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Office of Education

National Center for Educational Research and Development
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ABSTRACT

Purpose: This investigation was conducted to determine: (1) the extent of dissemination of the Research Utilizing Problem Solving (RUPS) and Development of Higher Level Thinking Abilities (TABA) instructional systems developed by the Northwest Regional Laboratory (NWREL), (2) the degree of conformity between the RUPS and TABA systems as developed and that used in the field, and (3) the perceptions and extent of usage. Data were gathered through a mail survey to both trainers and trainees who participated in the programs.

Findings: TABA respondees perceived themselves generally as utilizing their training with a high degree of regularity. Significant differences were found among the usage of training by experienced teachers, i.e., TABA training seemed to be more valuable to them than to less experienced or inexperienced teachers.

Analysis of the RUPS instructional system showed few differences between respondent sub-groups. It appeared that TABA was used more frequently in classrooms than RUPS training.

Conclusions: TABA training should be primarily aimed at in-service with experienced teachers. RUPS training may not be as useful to classroom teachers as is TABA.

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Chapter I

INTRODUCTION

Statement of the Problem

Instructional systems are being used extensively across the nation, especially for in-service training of teachers. These systems are usually recognized as being an economic means of increasing teacher competencies. However, the decision to adopt any system can involve a considerable expenditure of resources, and therefore adopting agencies should be aware of any program evaluation that is available.

Since the Fall of 1966, the Northwest Regional Educational Laboratory (NWREL) has been developing and disseminating many instructional systems under its "Program 100." All of these systems have been extensively field tested with workshop evaluations being a standard component of each system (See for example, "Final Report of the Evaluation of the Research Utilizing Problem Solving Process Workshops," in E.P.D.A. Project sponsored by the Idaho Consortium, January, 1970). NWREL has also conducted cognitive and behavioral follow-up studies for all systems, some of which are summarized below.

The present study was designed to evaluate selected aspects of the two most widely-used NWREL systems: Laboratory Program 122, "Development of Higher Level Thinking Abilities" (TABA), and Laboratory Program 132, "Research Utilizing Problem Solving" (RUPS). These two systems have been utilized by colleges and universities, by state educational agencies, and by school districts; especially in the Pacific Northwest.

The present study attempts to evaluate whether persons who have been trained under one of these systems perceive themselves as using the skills and concepts purported to be instilled by these systems, and will therefore assist potential adopters in their decisions about these systems. The findings of this study will not be generalizable to other instructional systems, but the techniques may. Objectives of the investigation were to:

1. Determine the extent of use of the systems within the area served by the Northwest Regional Education Laboratory: Alaska, Idaho, Montana, Oregon, and Washington.

2. Establish whether or not the teacher training program actually being taught by TABA and RUPS trainers and the instructional systems being produced by the Laboratory were essentially the same.

3. Analyze data gathered by the instruments devised, drawing generalizations and conclusions concerning the value of the systems for teacher training.

4. Develop instruments to assess the extent of use of TABA and RUPS by persons who were trained under these systems.

Description of "Development of Higher Level Thinking Abilities" (TABA)

The research base for this instructional system was the work of the late Hilda Taba as outlined in two of her publications, Curriculum Development: Theory and Practice, (Taba, 1962) and Cognitive Functioning in Elementary School Children, (Taba, 1966). Under the sponsorship and directorship of the NWREL, the "Development of Higher Level Thinking Abilities" system was developed by relating Taba's research to Benjamin Bloom's Taxonomy of Educational Objectives, Handbook I: Cognitive Domain, (Bloom, 1956) and to Norris M. Sanders' Classroom Questions, What Kinds?, (Sanders, 1966).

The system was designed to lead participants through a series of learning experiences for each of three essential thinking processes: Concept Diagnosis, Interpretation of Data, and Application of Knowledge. These learning experiences are:

1. Sensitivity experiences
   Participants are introduced to each essential process by simulation with participants role-playing as students and the trainer role-playing as teacher.

2. Knowledge base
   This activity is a didactic presentation of the theoretical base for the thinking activity.

3. Simulation experiences
   Participants use the behavior that characterizes the process in studying the process itself. A problem is presented which the participants discuss and this is where the learning should take place.

4. Learning experiences
   Participants use the process in the classroom with systematic data collection and feedback from subsequent discussion.

5. Application
   Participants use the processes in developing lessons in a chosen curriculum area (McCollum and Davis, 1968).

Description of "Research Utilizing Problem Solving" (RUPS)

The RUPS system was developed to prepare teachers to solve organizational problems in the classroom and to use innovative strategies for instruction. The specific objectives of the RUPS program include: (1) formulating improvement goals; (2) using data-gathering instruments and techniques for diagnosing classroom conditions; (3) deriving action implications from research and data gathered in the local schools; (4) designing action research projects at the classroom and building level; (5) using instruments for evaluative assessment; (6) analyzing and interpreting action research data; (7) disseminating results and innovations. (For a list of activities see Appendix D.)

The RUPS system was developed at the University of Michigan by the Cooperative Project for Educational Development. The system relies upon the action-research theories of Charles Jung and the force field analysis theories of Kurt Levin (NWREL, 1970).

The NWREL considers the content of both programs RUPS and TABA to be completed, although the RUPS system is being adapted for use with different groups, such as administrators and change agents as of the time of this study.

Summary of NWREL Research on RUPS and TABA

Data collected by NWREL evaluators on the RUPS system show that in 23 workshops (n=1147) 3.1 out of every four participants (77%) rated their workshop experiences as very worthwhile (using both rating scales and open-ended value statements). Data from an additional four workshops (n=81) reported that 81% of the participants stated a "strong intention" to use their learning in their work. The NWREL assumed that these findings are attitudinal presuppositions for continued dissemination and implementation.

The NWREL has also collected data on skills acquisition. In their summary of findings in this area, their writers stated that:

> With respect to the essential learning content of the RUPS training program, Problem Solving and Team Building Skills, data from nine workshops (n=233) shows that 68% of all participants specified one or more Problem Solving Skills or important learning benefits, and 82% so specified one or more Team Building Skills. (These figures include those who specified benefits in both skill areas.) Less than 1% of the participants made negative comment pertaining to either skills area. The endorsement of these skills by three out of every four participants gives substantive meaning to the high valuation of RUPS training by workshop participants (NWREL, 1972).

Learning gains gathered from four workshops (n=145) show that three out of four participants performed at or above the 75% correct criterion level. In the same workshop 80% of the participants applied Force Field Analysis to a "Back Home" problem of their own choosing at the 75% criterion level of correct performance (NWREL, 1972).

In a publication released in February of 1971, the NWREL evaluators summarized TABA research as follows:

1. Participants react favorably to the TABA training program. Seventy-five percent of the participants were totally positive in their attitude toward training from the beginning of data collection to the last series of tests (n=290).

2. Participants learn conceptual content of training. Mean post training score exceeds 80% correct criterion level (n=37).

3. Flanders analysis, specific TABA coding and student descriptions of teacher behavior for different samples all indicate increased student initiative and enthusiasm, increased teacher-pupil openness, improved teacher questioning styles and increased teacher use of student ideas after training (n=79, Control n=43).

4. Follow-up data (some collected as long as four years after training) shows that 73% of the trainees still value the questioning strategies, frequently use them in the classroom, and in general, retain knowledge of the system after training (n=67) (NWREL, 1971).

These figures are compared with data from the present investigation in Chapter III.

Theoretical Basis and Objectives

The theoretical basis used for this study was that of an "a-experimental investigation" as described by Egon C. Guba (1965). Guba has long advocated a shift away from traditional experimental design in studying program dissemination. He outlined the differences between the experimental and the a-experimental as being primarily differences of intent. The experimental investigator inquires into what might happen--into possibilities associated with intervening variables, while investigators using a-experimental design should inquire into what has happened--into actualities. The advantage of the a-experimental method is that it is context-free, i.e., variables and data can be explored whenever and wherever they occur. The number of variables in an a-experimental study are unlimited, whereas in an experimental study they must be strictly controlled. It is obvious that in an on-going educational program, such control is impossible.

John K. Hemphill (1969) agrees that intent is the critical factor which distinguishes evaluation studies from traditional educational research. He presents a rationale that an evaluation study must be viewed "within a context of decision-making, rather than within a framework provided by purposes and conventions of research" (Hemphill, p. 190).

Below is a summary of Hemphill's characteristics of evaluation studies. It can be observed that they form a dichotomous branch when compared to those defined for research.

Research	Evaluation
1. Problem selection and definition is the responsibility of the individual doing the research.	1. The problem is determined by the situation in which the study is conducted. The problem, because of its complexity, may involve many definers.
2. Tentative answers (hypotheses) to the problem may be derived by deduction from theories or by induction from an organized body of knowledge.	2. The task is one of testing generalizations rather than testing hypotheses. There are many gaps which in the absence of verified knowledge must be filled by reliance on judgment and experience.
3. Value judgments by the researcher are limited to those implicit in the selection of the problem.	3. Value judgments must be made at all stages of the study.
4. Given the statement of the problem and the hypothesis, the research can be replicated.	4. The study is unique to a situation and can seldom be replicated, even approximately.
5. The data to be collected are determined largely by the problem and the hypotheses.	5. All data collection is determined by feasibility and all choices are value judgments.
6. Relevant variables can be controlled or manipulated, and systematic effects or other variables can be eliminated by randomization.	6. Only superficial control of a multitude of variables is possible. Randomization is extremely difficult or impractical to accomplish. (Hemphill, p. 190-191).

Evaluation studies, according to Hemphill, can contribute to the development of educational knowledge, just as empirical research can. He stated that "Both profit from and stimulate the development of theory. Both can contribute to a science of education and perhaps both are required for its orderly development" (Hemphill, p. 191).

Stake and Denny further stated that educational evaluation must include". . . the task of gathering information about the nature and worth of educational programs in order to improve decisions about the management of those programs." (Stake and Denny, p. 373).

Description of Activities

The first step of the investigation was to conduct a survey to obtain and determine: (1) the names and addresses of all trainers utilizing these two instructional systems either as pre-service or in-service teacher training within the target area; and (2) the names and addresses of all persons who have been trained, on an in-service basis, by the trainers. The NWREL was the principal source of information for items (1) and (2) above. Education Departments and Extension offices of the target area's colleges and universities were other sources. Preliminary data from a NWREL report indicated that there were 1350 trainees under TABA and 1222 trainees under RUPS (NWREL, 1970,b). This first activity was to gather, sort, and tabulate the information obtained from those active trainers and those teachers trained in TABA and RUPS between June 1969, and August 1970.

Two instruments were designed for the second objective (convergent programs), one for TABA trainers and one for RUPS trainers. These instruments elicited responses on specific components of each program, so that variations, omissions, and any other changes could be ". . . clearly described and that outcomes be related to the training as given rather than to our product when it is not our product which is being utilized" (See appended letter from Dr. Jean Butman, Research and Evaluation Coordinator for the Laboratory). All trainers and their institutions were assigned codes so that data collected under Activity 3 (described below) could be tabulated and analyzed according to such variations, omissions and changes.

Two questionnaires were designed to elicit needed data for the third objective (value of the systems), one for RUPS trainees and one for TABA trainees. Data were also gathered to enable the evaluator to determine patterns of utilization.

With these data, the investigator (1) summarized the extent of utilization of the RUPS and TABA systems, (2) reported conformity of the programs being taught to the system disseminated by the Laboratory, and (3) tabulated and analyzed use patterns of these systems as perceived by the trainees. Data were compared to determine if there were significant differences among the following sub-groups:

1. District size (rural/urban).
2. Teaching level (elementary/secondary).
3. Years of experience of Trainers and Trainees.
4. Those trainers who were actively teaching at the time of their training and those who were not.

Chi square tests were used with the .05 level of significance being selected as acceptable to the investigator.

The investigator also analyzed and compared the percentage ratings of the above sub-groups for other selected data.

Relevance of the Study

The findings will be useful in determining to what extent the two systems were used in the area's schools, and should assist higher institutions and school districts in making decisions about utilizing the systems in in-service and pre-service teacher training.

The use of instructional systems developed by research and field testing is growing throughout the nation as a device for in-service teacher training. Therefore data on these two systems will be of broad concern. The result of the use of TABA and RUPS as classroom strategies by trainees may be decisive in designing additional in-service programs.

Methodology

All data for this study were gathered through the use of mailed questionnaires. Trainer questionnaires and cover letters were developed and mailed to all persons who, according to the NWREL, were qualified to conduct workshops in RUPS and/or TABA. This survey was necessary to determine whether trainers in the field perceive themselves as using the complete systems as developed by the NWREL, or if they made substantial changes. These questionnaires itemized components of both systems and asked respondents to check in appropriate columns if they omitted or changed any component. The results of this part of the survey are reported in Chapter II.

Only trainers who had conducted workshops during the target dates of June 1, 1969 to August 30, 1970 were mailed questionnaires.

Two questionnaires were developed for trainees under the two systems. The same target dates were used. All trainees whose responses were utilized in this study were trained by those persons who are considered qualified trainers by the NWREL, but not all of the trainers returned questionnaires. This aspect of the study will also be reported in Chapter II.

The names and addresses of trainees were obtained from the NWREL and from colleges and universities within the area served by the NWREL, Washington, Oregon, Idaho, Montana, and Alaska. Three hundred seventy-nine (379) usable RUPS questionnaires and three hundred sixty-two (362) TABA questionnaires (54% and 50% respectively) were thus available for tabulation and analysis. David J. Fox, in his book The Research Process In Education, stated that when a research population can be considered

to be a homogenous mass, ". . . one third or one fourth of that mass can be considered to be providing some insight into the views of that mass" (Fox, 1969).

The format of all questionnaires was approved by the Director of the Data Processing Center at Eastern Washington State College. The content of the questionnaires was examined and approved by two persons who were qualified trainers under the two systems. All of the items on the questionnaires were developed to correlate as closely as possible with instruments used by the NWREL, although no attitudinal instrument was available from the NWREL for RUPS.

After all of the questionnaires were collected, a computer program for data treatment was completed and reports were printed including total numbers and percentages. Because this study was designed to evaluate the responses of teachers, the data accumulated for other personnel such as administrators are reported only as percentages, and a comparison was made for items of a demographic concern.

All comments were examined for patterns, and those that seemed useful to the investigator are listed by category in Appendix F. Several generalizations based upon the comments are included in Chapter II.

Chapter II

THE TABA STUDY: SUMMARY AND CONCLUSIONS

General Findings

The trainer survey revealed that all TABA trainers who responded perceived themselves as implementing the TABA system substantially as it is presented in the NWREL manual; therefore all trainee responses were treated uniformly. If a trainer had perceived of himself as omitting or substantially changing any components of the TABA instructional system, the responses from trainees who had received such revised training would have been treated separately from those who received the complete program.

Since the primary purpose of this investigation was to determine the perceptions of classroom teachers as to their usage of their training, the general findings of this part of the study are discussed first. The three questionnaire items on usage were:

VIII. Please respond to each of the following statements as you perceive yourself using the processes and ideas learned during your TABA training.

A. To what extent have you used the processes and ideas in "Concept Diagnosis" in your classroom since you received your TABA training?

1. Never_____ Comments
2. Once since the training____
3. A few times_____
4. Once a month_____
5. Once a week_____
6. One or more times daily____

B. To what extent have you used the processes and ideas in "Interpretation of Data" in your classroom since you received your TABA training?

1. Never_____ Comments
2. Once since the training_____
3. A few times_____
4. Once a month_____
5. Once a week_____
6. One or more times daily_____

C. To what extent have you used the processes and ideas in "Application of Knowledge" in your classroom since you received your TABA training?

1. Never_____ Comments
2. Once since the training_____
3. A few times_____
4. Once a month_____
5. Once a week_____
6. One or more times daily_____

The responses and percentages for the three usage items are shown in Table 1 below.

TABLE I - Reported Usage by Respondents

Questionnaire Items	Number Responding	Percent Responding
VIII-A. Concept Diagnosis		
1. Never	9	3.3
2. Once since training	4	1.5
3. A few times	108	39.3
4. 1/month	47	17.1
5. 1/week	63	22.9
6. 1/day	44	16.0
Totals	275	96.5[a]
VIII-B. Interpretation of Data		
1. Never	11	4.1
2. Once since training	3	1.1
3. A few times	105	38.9
4. 1/month	40	14.8
5. 1/week	65	24.1
6. 1/day	46	17.0
Totals	270	94.7
VIII-C Application of Knowledge		
1. Never	12	4.5
2. Once since training	5	1.9
3. A few times	102	38.3
4. 1/month	34	12.8
5. 1/week	69	25.9
6. 1/day	44	16.5
Totals	266	93.3

[a]Since all respondents did not mark each item, all computations were based upon only marked items. Percentage totals on all tables in this study show total respondents that marked that particular item. Hence item VIII-A in Table 1 means that 96.5% of all teacher respondents marked this item.

TABLE 2 - Average of Usage Item Responses

Response Category	Average Number of Responses	Average Percentage of Responses	Interpretation
1. Never	11	3.7	TABA Strategies rejected
2. Once since training	4	1.5	TABA Strategies tried but rejected
3. A few times	105	38.8	TABA Strategies partially adopted
4. 1/month	40	14.9	TABA Strategies partially adopted
5. 1/week	66	24.3	TABA Strategies adopted
6. 1/day or more	44	16.5	TABA Strategies adopted and integrated

The percentage figures shown in Tables 1 and 2 above are the most important statistics from the TABA survey. They show that a large percentage of respondents (55.7) marked one of the last three categories, which the investigator interpreted as meaning regular classroom usage. These respondents perceived themselves as using their training in the classroom with varying but high degrees of regularity. Also, those who checked that they used each activity once a week, actually perceived themselves as using some part of TABA three times a week.

An additional 38.8% of the respondents perceived themselves as using their training "a few times." The investigator interpreted this category as meaning that the TABA training had a small effect on their classroom techniques.

The small percentage (5.2) who responded in the "never" or "once since training" categories are interpreted by the investigator to mean that the TABA strategy was rejected by those respondents. That these figures are very low is a strong indicator that the TABA system has a lasting impact on nearly all trainees.

The NWREL statistics which are previously cited in Chapter I state that 73% of the respondents to the NWREL instrument frequently use the questioning strategies in the classroom.[1] The figures from the present study indicate regular classroom usage by 55.7% and some classroom usage by 38.8%.[2] The NWREL also found that 73% of the trainees retained knowledge of the system after their training. While the present study did not gather such cognitive data, the investigator assumes that all respondents but two understood the strategies well enough to at least evaluate their own degree of usage. The present study therefore indirectly verifies the NWREL's claim that most trainees do retain their knowledge of the TABA system.

Other tabulations of data showed that with a few exceptions, respondents were consistent in perception of their usage: that is, if the respondent perceived himself as using "Concept Diagnosis" once or more times per day, he also perceived himself as using "Interpretation of Data" and "Application of Knowledge" once or more times per day.

Chi-Square Analysis

The data tabulation is included to show how the respondents reacted to the questionnaire items. Several data sorts were made, and within each specific sort, questions were analyzed to observe if the sorted groups responded similarly or not to the particular question. The statistical device used was a two-way contingency table, the pertinent statistic being the chi-square statistic. If the statistic computed is smaller than the tabular value, the hypothesis can be accepted that the groups being tested are compatible. If the statistic is greater than the tabular value, the groups are deemed incompatible. The level of significance used throughout is .05, a conventional choice. All data sorts were made on a CDC 3200 computer.

After the sorts were made, each of the six data groups from Table 2 were set up on contingency tables with each of the three usage items and also with each other to determine if usage patterns emerged. Each of the following tables, 4 through 13, states the chi-square, the degrees of freedom and if these figures showed that the differences were critical under the .05 level of significance.

For convenience, the chi square distribution for .05 is duplicated in Table 3.[3]

---

[1] The NWREL considers the last three categories, 1/month or more, as regular classroom usage.

[2] These figures from the NWREL were gathered from a selected sample of trainees who received their training in the early stages of TABA development. The time lapse was from one to four years of training. The time lapse of the present study was from one to two years.

[3] As shown in "Statistical Methods for Research Workers," by R.A. Fisher, 6th Edition, 1969. (Edinburgh: Oliver and Boyd).

TABLE 3 - Chi Square Distribution

Degrees of Freedom	0.05
1	3.841
2	5.991
3	7.815
4	9.488
5	11.070
6	12.592
7	14.067
8	15.507
9	16.919
10	18.307
11	19.675
12	21.026
13	22.362
14	23.685
15	24.996
16	26.296
17	27.587
18	28.869
19	30.114
20	31.410
21	32.671
22	33.924
23	35.172
24	36.415
25	37.652
26	38.885
27	40.113
28	41.337
29	42.557
30	43.773

TABLE 4 - Teaching Level Analysis of Questionnaire Item II

	Chi Square	Degrees of Freedom	Significant
VIII-A. Concept Diagnosis	29.701	20	no
VIII-B. Interpretation of Data	18.801	20	no
VIII-C. Application of Knowledge	27.739	20	no

Responses of teacher trainees on this item did not show a significant difference between the five sub-groups (grade levels 1-3, 4-6, 7-8, 9-12, college-other). The responses for usage items did not vary significantly by level taught. Therefore through the use of statistical inferences the investigator assumes that "grade level taught" is not a critical variable in teacher trainee's perception of their usage of TABA training.

TABLE 5 - Urban-Rural Analysis of Questionnaire Item IV

	Chi Square	Degrees of Freedom	Significant
VIII-A. Concept Diagnosis	10.308	5	no
VIII-B. Interpretation of Data	3.231	5	no
VIII-C. Application of Knowledge	11.564	5	yes (.05)

This analysis revealed that urban trainees perceived themselves as using "Application of Knowledge" more than did rural teachers. Though not quite significant, "Concept Diagnosis" followed the same trend. That is, "Application of Knowledge" is <u>just</u> significant and "Concept Diagnosis" is just <u>not</u> significant, with the point needed on the distribution chart being 11.070.

Teaching in an urban school or a rural school is significant as a variable in a trainee's perception of the degree to which the trainee uses this component of TABA training. But it cannot thereby be assumed that rural teachers do not utilize their TABA training.

TABLE 6 - Teaching Experience Analysis of Questionnaire Item V

	Chi Square	Degrees of Freedom	Significant
VIII-A. Concept Diagnosis	16.412	10	no
VIII-B. Interpretation of Data	12.173	10	no
VIII-C. Application of Knowledge	119.729	10	yes (.05)

Table 6 shows that more experienced teachers indicated a greater usage of "Application of Knowledge" than did less experienced teachers. The statistic for "Application of Knowledge" is the largest from any sort. Since the less experienced teachers perceived themselves as using "Application of Knowledge" less often than did experienced teachers, the investigator assumes that this particular teaching technique may be more difficult for inexperienced teachers.

The technique requires the teacher to develop or identify a situation to which previously studied knowledge can be applied. It can be inferred that TABA training is more valuable for experienced teachers. This is the second most important statistic from the present study.

TABLE 7 - Analysis of Training Conditions (Workshop, Extension, Regular College Course) from Questionnaire Item VI

	Chi Square	Degrees of Freedom	Significant
VIII-A. Concept Diagnosis	13.820	10	no
VIII-B. Interpretation of Data	7.535	10	no
VIII-C. Application of Knowledge	13.458	10	no

This table shows that the conditions of training (workshop, extension, or regular college course) apparently did not affect the degree to which TABA trainees perceived themselves as using any of the three parts of the TABA instruction. Several TABA trainers expressed the supposition that this variable would be critical, but the inferential statistics do not support such an assumption. This is the third most important statistic from the present study.

TABLE 8 - Analysis of Class Availability from Questionnaire Item VII

	Chi Square	Degrees of Freedom	Significant
VIII-A. Concept Diagnosis	9.767	5	no
VIII-B. Interpretation of Data	7.594	5	no
VIII-C. Application of Knowledge	5.191	5	no

Table 8 shows that trainees who had an opportunity to use TABA ideas with a class of children during their training did not perceive themselves as using that training to a greater extent than those who did not have a class to teach. Statistical inference on this table is perhaps mitigated by the characteristics of the TABA instructional system itself. The system requires the trainees to simulate roles of both teacher and student. The TABA system thus has a built-in classroom situation. Availability of children for use would seem to be a desirable training device, but the statistical inference shows that it is not a critical factor for subsequent perception of usage of the training. This is the fourth most important statistic from this study.

TABLE 9 - Analysis of Teaching Levels (1-3, 4-6, 7-8, 9-12, College-Other) from Questionnaire Item II

Questionnaire Item Number	Variable	Chi Square	Degrees of Freedom	Significant
IV	District class (rural-urban)	9.334	4	no
V	Teaching experience (0,1,2-3,4-5,6-10,11+)	33.749	20	yes(.05)
VI	Training conditions (workshop, extension, regular college course)	27.869	8	yes(.05)
VII	Children available to teach (yes,no)	0.623	4	no

The teaching level data sort for questionnaire item IV shows a consistent cross-section of grade levels in both rural and urban groups.

The teaching experience data sort shows that those teaching the higher grade levels have more experience than those who teach in lower grade levels. All college personnel had eleven plus years experience which is one reason why the sort was significant.

The training conditions data sort shows that all college personnel received training through workshops but that all other teaching levels had a balance of types.

The final sort shown on Table 9 shows that grade level taught did not affect the availability of children to teach during TABA training.

TABLE 10 - Analysis of District Class (Rural-Urban) on Questionnaire Item IV

Questionnaire Item Number	Variable	Chi Square	Degrees of Freedom	Significant
V	Teaching experience (0,1,2-3,4-5,6-10,11+)	2.710	5	no
VI	Training conditions (workshop, extension, regular college course)	6.369	2	yes(.05)
VII	Children available to teach (yes,no)	5.236	1	yes(.05)

It can be assumed from this table that the rural-urban factor is not critical to experience for the respondents (V).

The Item VI data sort highlights the fact that urban teachers are more likely to receive training in extension classes, and are also more likely to have children available (VII) to teach during training.

Since Tables 7 and 8 showed that neither of the two variables that were significant in Table 10 affect the training perception of usage, they are not considered to be qualitatively important for this study. That is, the mode by which training took place and availability of children apparently are not critical instructional variables.

TABLE 11 - Teaching Experience Analysis (0,1,2-3, 4-5, 6-10, 11+) from Questionnaire Item V

Questionnaire Item Number	Variable	Chi Square	Degrees of Freedom	Significant
VI	Training conditions (workshop, extension, regular college course)	22.866	4	yes(.05)
VII	Children available to teach (yes, no)	2.809	2	no

The teaching experience data sort seems to illustrate that among the respondents, the more experienced teachers received their training in workshops and the less experienced teachers received their training more often as part of a regular college course.

Experience is not a critical factor as to whether the trainees will have children available to teach or not.

Table 6 showed that more experienced teachers perceived themselves as using their training more than did less experienced teachers. This could mean that workshop training is more valuable than extension or college course training for specific instructional techniques. The investigator's personal observations and several written comments by respondents indicated that workshop training is generally more thorough, but more time-consuming. This generalization cannot be established by these data because of the intervening variable, but might be assessed in later studies.

TABLE 12 - Analysis of Training Conditions (Workshop, Extension, Regular College Course) from Questionnaire Item VI

Questionnaire Item Number	Variable	Chi Square	Degrees of Freedom	Significant
VII	Children available to teach (yes,no)	19.160	2	yes(.05)

Extension classes had children available in 98% of the cases, while other groups were 75% and 25%. This is a consistent finding since most extension classes are comprised of practicing teachers. Not all workshop trainees were teaching and very few who attended regularly conducted college classes have ever taught.

General Observations Based Upon Data Sorts and Statistical Analysis

The most significant fact to emerge from the chi square statistical tabulation was that those trainees who had more teaching experience perceived themselves as using TABA techniques more frequently than did less experienced teachers, see Table 13.

TABLE 13 - Analysis of Respondents' Years of Teaching Experience

Years Experience	Number	Percent
0	11	3.9
1	14	5.0
2-3	44	15.6
4-5	48	17.0
6-10	68	24.0
11 or more	97	34.3

Data from Table 13 add importance to the perceived usage of the more experienced teacher. There were more TABA respondents in the more experienced categories (six or beyond) and fewer respondents in the less experienced categories. The investigator assumed that more of those teachers who benefit maximally from the training, are receiving the training. The validity of the assumption, of course, needs testing.

Aside from the above, none of the other statistical data sorts revealed information that would be of value to the planning of college or in-service teacher training. All teaching levels, all trained under any of the three training conditions, all who had children available or did not, seemed to have profited about equally from their training. The investigator concludes that present methods of disseminating the TABA training program are adequate if more widespread dissemination of TABA is not undertaken. This is discussed in the recommendations below.

Recommendations Based Upon Statistical Analysis

1. Experienced teachers tend to use their training more than inexperienced teachers. If decisions need to be made about resource allocation of TABA training, such resources should be allocated to training experienced teachers.

2. If it does not interfere with training of experienced teachers, the region's colleges and universities and/or the NWREL should make greater efforts to train those who train teachers in TABA techniques.

3. Because the data from the present study confirms the NWREL's position about the efficacy of TABA as an instructional system, school districts should provide the opportunity for all teachers to receive TABA training. This study and the NWREL's studies together provide a strong initial set for adoption by all school districts. School districts should provide adequate rewards for all teachers who complete TABA training.

Suggestion For Further Study

Workshop training seems to have a positive effect on usage of training, probably due to more comprehensiveness, but possibly also because of a greater number of experienced teachers. Since this is not directly verifiable by the data, it cannot be offered as a definite recommendation.

Recommendations Based Upon Respondent "Comments" (See Appendix F)

1. Many respondents expressed a desire for additional TABA training. Advanced TABA training should be provided by school districts, possibly on a consolidated level.

2. Large numbers of respondents commented upon the value of TABA questioning strategies. Unless the NWREL has contrary data on their Questioning System, TABA training should receive dissemination priority over the Questioning System.

3. The investigator can provide the basic material for compiling a mailing list for TABA trainees. Because many respondents expressed a need or a desire for additional ideas and materials for TABA usage, the NWREL and/or the region's colleges or universities should provide an idea exchange and news letter for TABA trainees.

Chapter III

SUMMARY OF THE STUDY--RUPS

General Findings from Survey

Analysis of data from the RUPS trainer survey showed that those trainers who responded to the questionnaire perceived themselves as using the RUPS system substantially as it is disseminated by the NWREL; therefore all trainee responses are treated uniformly. If a trainer had perceived herself or himself as omitting or substantially changing any of the essential components of the RUPS instructional system, the data from those trainees who had received such revised training would have been computed separately from those trainees who received the complete program.

Since the primary purpose of the RUPS investigation was to determine the perceptions of the classroom teachers as to their utilization of their training, the general findings of this section of the study are discussed first. The questionnaire items on usage follows.

The responses to the items on classroom usage are shown with their percentages in Table 14.

TABLE 14 - Total and Percentage of Teacher Responses-Questionnaire Item VIII-A Problem Identification

	Number Responding	Percent Responding
Never	29	16.8
Once since training	7	4.0
A few times	115	66.5
1/month	13	7.5
1/week	9	5.2
1/day	0	0.0
TOTAL Responding	173	49.5

From the data in Table 14 it appears that "Problem Identification" was used by the respondents rather infrequently, depending upon the criterion to be used, e.g. once a month or more often.

TABLE 15 - Total and Percentage of Teacher Responses--Questionnaire Item VIII-B Research Utilization

	Number Responding	Percent Responding
Never	53	30.5
Once since training	7	4.0
A few times	95	54.6
1/month	13	7.5
1/week	6	3.4
1/day	0	0.0
TOTAL Responding	174	95.1

Again, from the data in Table 15 it would seem that "Research Utilization" is used infrequently by the respondents, i.e., usually less than once a month.

TABLE 16 - Total and Percentage of Teacher Responses--Questionnaire Item VIII-C Force Field Analysis

	Number Responding	Percent Responding
Never	68	39.5
Once since training	13	7.6
A few times	80	46.5
1/month	9	5.2
1/week	2	1.2
1/day	0	0.0
TOTAL Responding	172	94.0

The use of "Force Field Analysis" by the respondents tended to follow the pattern of infrequent use.

TABLE 17 - Total and Percentage of Teacher Responses--Questionnaire Item VIII-D Teamwork Relationships

	Number Responding	Percent Responding
Never	75	43.6
Once since training	11	6.4
A few times	71	41.3
1/month	7	4.1
1/week	8	4.7
1/day	0	0.0
TOTAL Responding	172	94.0

From the data reported in Table 17 it would appear that "Teamwork Relationships" is also used rather infrequently by the respondents. However, there was a slight increase at the weekly or monthly levels when compared to "Force Field Analysis," Table 16.

TABLE 18 - Total and Percentage of Teacher Responses--Questionnaire Item VIII-E Data-gathering Skills

	Number Responding	Percent Responding
Never	57	33.3
Once since training	10	5.8
A few times	88	51.5
1/month	9	5.3
1/week	7	4.1
1/day	0	0.0
TOTAL Responding	171	93.4

The pattern of responses for "Data-gathering Skills" follows closely those reported in Tables 14, 15, 16 and 17. That is, there is infrequent use of the specific skill.

TABLE 19 - Total and Percentage of Teacher Responses--Questionnaire Item VIII-F Tool Selection

	Number Responding	Percent Responding
Never	59	35.3
Once since training	9	5.4
A few times	87	52.1
1/month	8	4.8
1/week	4	2.4
1/day	0	0.0
TOTAL Responding	167	91.3

"Tool Selection" seemed to be used rather infrequently by the respondents, as may be observed from data in Table 19.

TABLE 20 - Total and Percentage of Teacher Responses--Questionnaire Item VIII-G Implications Derived

	Number Responding	Percent Responding
Never	69	42.6
Once since training	9	5.6
A few times	72	44.4
1/month	9	5.6
1/week	3	1.9
1/day	0	0.0
TOTAL Responding	162	88.5

The data in Table 20 tend to show that the techniques associated with "Implications Derived" were used infrequently by the respondents.

TABLE 21 - Total and Percentage of Teacher Responses--Questionnaire Item VIII-H Planning for Action

	Number Responding	Percent Responding
Never	45	27.4
Once since training	7	4.3
A few times	92	56.1
1/month	11	6.7
1/week	9	5.5
1/day	0	0.0
TOTAL Responding	164	89.6

Techniques associated with "Planning for Action" appeared to be used more frequently by the respondents than the previously reported skills as is shown by data in Table 21.

TABLE 22 - Total and Percentage of Teacher Responses--Questionnaire Item VIII-I Small Group Dynamics

	Number Responding	Percent Responding
Never	52	31.5
Once since training	8	4.8
A few times	76	46.1
1/month	12	7.3
1/week	17	10.3
1/day	0	0.0
TOTAL Responding	165	90.2

The single concept to which the respondents noted greatest use was "Small Group Dynamics." Compare the data in Table 22 with Tables 14 through 21 to note the reported increased use.

Table 23 below shows the average usage figures for all RUPS trainee respondents. The usage items were averaged horizontally for all teacher responses on items VIII-A through VIII-I. It can be observed that there was reported rather infrequent use of the techniques.

TABLE 23 - Average Percentage of Teacher Trainees Responding to Items VIII-A through VIII-I

Item Category	Percent Responding
Never	33.4
Once since training	5.3
A few times	51.0
1/month	6.0
1/week	4.5
1/day	0.0
TOTAL	100.2

The average percentage figures from Table 23 above are the most important set of statistics from the RUPS survey. The investigator concluded from these data that the RUPS system does have a significant impact upon teacher trainees, that is, RUPS seems to be used by these teacher respondents. The item category "a few times" containing 51% of all trainees would mean that those who checked this response for each of the nine components perceived themselves as using each of the components a "few times." If those respondents who marked the next two categories, "monthly" or "weekly" are added to those who marked "a few times" the total for those who perceive themselves as using their training in the classroom is 61.5%. This could be considered as a high degree of usage since none of the components of the RUPS system are intended to be used on a daily basis. They are not instructional methods, but are diagnostic and evaluation skills. But if the criterion measure were monthly use or more frequently then it must be concluded that the RUPS system techniques are used very infrequently by the respondents.

All usage figures are mitigated by the fact that if those who marked that they used each item monthly, perceived themselves as using each RUPS component monthly, then there would be nine usages. However, this conclusion is not supported by data--but may be stated as an inference.

Item IX on the RUPS Questionnaire was designed to test the attitudes of the trainees toward their training. The statement read as follows:

IX. Please check <u>one</u> of the following statements concerning how you feel about the RUPS training program.

1. I think the RUPS program was a waste of time._____
2. I think it had some small value to me as a person._____
3. I think it was valuable to myself and other persons in the workshop. _____
4. I think it is a very valuable program._____

The tabular results of this item are shown in Table 24.

TABLE 24 - Number and Percentages of Teacher Trainees Responding to Item IX

	Number Responding	Percent Responding
1. Waste of time	18	10.2
2. Some small value	61	34.7
3. Valuable	75	42.6
4. Very valuable	22	12.5
TOTAL Responding	176	96.2

From the data in Tables 23 and 24 above, it seems evident that some of the respondents who do not perceive themselves as using the training in the classroom nonetheless perceived that the RUPS workshop was of "some small value" or "valuable." The figures from these two tables would tend to support the NWREL's assumption that there is evidence for continued dissemination of the RUPS instructional system. These findings should cause concern for those who are proponents of total teacher competency based evaluations.

Chi Square Analysis

Data tabulation for the RUPS system is included to show how the respondents reacted to the questionnaire items. Data sorts were made for all items, and within each particular sort, questions were analyzed to determine if the sort groups responded similarly or not to each respective question. The statistical test used was a two-way contingency table for the chi square treatment. If the statistic computed is smaller than the tabular value, the hypothesis can be accepted

that the groups being tested are compatible. If the statistic is greater than the tabular value, the groups are deemed incompatible. The level of significance used throughout is .05, a conventional choice.

After the sorts were made, each of the six demographic data groups from Table 24 were set up on contingency tables with each of the nine usage items (VIII A-I), and also with each other, to determine if the resulting figures showed that the differences were critical under the .05 level of significance.

The chi square distribution table of values is shown in Chapter II, Table 3, Page 13.

TABLE 25 - Chi Square Analysis for Teaching Level--(Questionnaire Item II with all usage items--Questionnaire Items VIII A-I)

Item Number	Variable	Chi Square	Degree of Freedom	Significant
VIII-A	Identifying Problems	15.642	12	no
VIII-B	Utilizing Research	7.670	12	no
VIII-C	Force Field Analysis	10.320	9	no
VIII-D	Teamwork Relationships	21.929	12	yes(.05)
VIII-E	Data-Gathering Skills	7.671	12	no
VIII-F	Tool Selection	10.306	9	no
VIII-G	Deriving Implications and Alternatives	4.812	12	no
VIII-H	Planning for Action	8.356	12	no
VIII-I	Small Group Dynamics	10.743	12	no

Table 25 shows one significant difference, Teamwork Relationships. The significant difference which resulted is that respondents teaching in Grades 9-12 reported not using this particular skill at all. All of the other skills were evenly distributed throughout the grade levels. It can therefore be assumed that Grade Level Taught is not a significant variable for trainee perception of classroom usage in grades below the ninth. Had this difference shown up for more than one out of the nine components, a generalization might have been made. But, it might be cautiously generalized that high school teachers did not use team building strategies. This may have been caused by lack of team teaching environments.

The usage sort for Questionnaire Item IV (Rural-Urban) showed no statistical significance. It can be assumed that this variable is not significant for trainee perception of classroom usage.

TABLE 26 - Chi Square Analysis for Teaching Experience (Questionnaire Item V) with all usage items (Questionnaire Items VIII A-I)

Item Number	Variable	Chi Square	Degree of Freedom	Significant
VIII-A	Identifying Problems	23.279	8	yes(.05)
VIII-B	Utilizing Research	14.426	8	no
VIII-C	Force Field Analysis	9.318	6	no
VIII-D	Teamwork Relationships	14.746	8	no
VIII-E	Data-Gathering Skills	7.049	8	no
VIII-F	Tool Selection	12.510	8	no
VIII-G	Deriving Implications and Alternatives	6.066	6	no
VIII-H	Planning for Action	11.210	8	no
VIII-I	Small Group Dynamics	11.711	8	no

The data in Table 26 show little variation; the one significant variable being Identifying Problems. Trainees from the first two experience categories (lesser experience) apparently used this particular skill with less frequency than did those in the more experienced categories. With that single exception, it can be assumed that Experience is not a critical variable in the perceived usage of all RUPS skills in the classroom. Because of the importance of experience to the TABA system described in Chapter II, the fact that it does not seem to be as critical in the RUPS system is considered to be the second most important statistical finding from the RUPS survey.

TABLE 27 - Chi Square Analysis for Training Conditions (Questionnaire Item VI) with all usage items (Questionnaire Items VIII A-I)

Item Number	Variable	Chi-Square	Degree of Freedom	Significant
VIII-A	Identifying Problems	4.294	8	no
VIII-B	Utilizing Research	3.754	8	no
VIII-C	Force Field Analysis	3.223	6	no
VIII-D	Teamwork Relationships	6.740	8	no
VIII-E	Data-Gathering Skills	3.959	8	no
VIII-F	Tool Selection	7.099	8	no
VIII-G	Deriving Implications and Alternatives	5.433	6	no
VIII-H	Planning for Action	5.633	8	no
VIII-I	Small Group Dynamics	7.045	8	no

Table 27 presents data which show that whether a teacher is trained in RUPS under workshop, extension, or a regular college course, has no significant effect on their use of the RUPS skills in the classroom. This is the third most important set of statistical inferences drawn from the RUPS survey. Suppositions were stated by some RUPS trainers that there would be a critical difference on this variable.

TABLE 28 - Chi Square Analysis for Class Availability (Questionnaire Item VII) with all usage items (Questionnaire Items VIII A-I)

Item Number	Variable	Chi Square	Degree of Freedom	Significant
VIII-A	Identifying Problems	3.700	4	no
VIII-B	Utilizing Research	11.648	4	yes
VIII-C	Force Field Analysis	5.878	4	no
VIII-D	Teamwork Relationships	5.041	4	no
VIII-E	Data-Gathering Skills	0.990	4	no
VIII-F	Tool Selection	4.958	4	no
VIII-G	Deriving Implications and Alternatives	4.721	4	no
VIII-H	Planning for Action	5.092	4	no
VIII-I	Small Group Dynamics	3.072	4	no

The data in Table 28 show one significant difference--Utilizing Research. Those respondents who had classes of pupils available to teach during the time they received their RUPS training used this particular skill significantly more frequently than those who did not. Because this difference appeared in but one of the nine components, no valid generalization can be derived from this set of statistics. In spite of the one critical category, the availability of a class to teach during RUPS training did not seem to affect respondent perception of usage in any important way.

The tables from the demographic data sorts are not shown in this report because none of them revealed any statistical differences.

Generally, the RUPS chi square analyses showed little dispersion, that is, the investigator could not isolate any critical statistically significant variable. None of the six demographic variables significantly affected how teacher respondents perceived themselves when using their training.

Observations and Recommendations Based Upon "Comments by Respondents--RUPS" (See Appendix G)

1. Many respondents commented upon the shortness of time of RUPS workshops. As can be observed from the selected comments in Appendix G, these respondents expressed a desire for more detailed development of RUPS components, for more opportunity to practice RUPS skills, and for some type of follow-up program.

Recommendation

The RUPS Instructional System needs to be less intensive; either the system should be shortened, or the duration of the workshop should be extended. The NWREL and/or the region's colleges and universities should develop and disseminate a follow-up workshop for RUPS trainees, probably on a consolidated district basis.

2. The Force Field Technique seems to be the most remembered and used aspect of the RUPS system. This observation is not born out statistically, but comments seem to justify this conclusion. Many administrators seem to have adapted Force Field Analysis to their work but their questionnaires were not part of the statistical program for this present investigation.

3. RUPS seems to be an effective means for awakening teachers to techniques for handling small groups within the classroom.

4. Depending on the criterion of use, RUPS appears to be used less frequently as a technique than was the TABA training.

Chapter IV

SUMMARY AND RECOMMENDATIONS

Purpose

The purpose of this study was to evaluate the use and type of training received by teachers for two instructional systems developed by the Northwest Regional Educational Laboratory of Portland, Oregon. The systems were "Development of Higher Level Thinking Abilities" (TABA) and "Research Utilizing Problem Solving" (RUPS).

The objectives were to:

1. Determine the extent of use of the systems within the area served by the Northwest Regional Educational Laboratory: Alaska, Idaho, Montana, Oregon, and Washington.
2. Establish whether or not the teacher training program actually being taught by TABA and RUPS trainers and the instructional systems being produced by the Laboratory were essentially the same.
3. Analyze data gathered by the instruments devised, drawing generalizations and conclusions concerning the value of the systems for teacher training.
4. Develop instruments to assess the extent of use of TABA and RUPS by persons who were trained under these systems.

All data were gathered through a mail questionnaire.

Summary

The following constitute the major findings of this study.

1. Experienced teachers tended to use the TABA training more than inexperienced teachers.
2. Many respondents expressed a desire for additional TABA training.
3. Many respondents commented on the value of the TABA questioning strategies.
4. The RUPS training was utilized by respondents, but there tended to be lesser use than with the TABA program.

Recommendations

The following recommendations pertain to the TABA and RUPS systems which were the subject of investigation.

1. If decisions need to be made about resource allocation of TABA training, such resources should be allocated to training experienced teachers.
2. Because the data from the present study confirms the NWREL's position about the efficacy of TABA as an instructional system, school districts should provide the opportunity for all teachers to receive TABA training. This study and the NWREL's studies together provide a strong initial set for adoption by all school districts. School districts should provide adequate rewards for all teachers who complete TABA training. Advanced TABA training should be provided by school districts, possibly on a consolidated level.

3. It appeared that the RUPS program might be more applicable to administrators. It is recommended that the NWREL compare the generalizability of RUPS to teachers and administrators.

REFERENCES

Bloom, Benjamin S., Editor. Taxonomy of Educational Objectives, Handbook I: Cognitive Domain. New York: David McKay Company, Inc., 1956.

Chase, Francis S. "R & D in the Remodeling of Education." Phi Delta Kappan. February, 1970.

Fox, David J. The Research Process in Education. New York: Holt, Rinehart and Winston, 1969, p. 542.

Guba, Egon C. "Methodological Strategies for Education Change." Washington, D.C. Paper presented to the Conference for Educational Change, 1965.

Hemphill, John K. "The Relationships Between Research and Evaluation Studies," Education Evaluation: New Roles, New Means. Chicago, University of Chicago Press, 68th Yearbook, Part II, National Society for the Study of Education, pp. 189-220, 1969.

Idaho Consortium. "Final Report of the Evaluation of the Research Utilizing Problem Solving Process Workshops." EPDA sponsored project. January, 1970.

McCollum, John A. and Rose Marie Davis. Development of Higher Level Thinking Abilities. Portland: Northwest Regional Educational Laboratory, 1968.

Miles, Matthew B., Editor. Innovation in Education. Bureau of Publications, Teachers College, Columbia University, New York, 1964.

Research Utilizing Problem Solving. Portland: Northwest Regional Educational Laboratory, May, 1970.

"RUPS Technical Memorandum." Portland: Northwest Regional Educational Laboratory, January 1972.

Sanders, Norris M. Classroom Questions: What Kinds? New York: Harper and Row, 1966.

Stake, Robert E. and Terry Denny. "Needed Concepts and Techniques for Utilizing More Fully the Potential of Evaluation," Educational Evaluation: New Roles, New Means. Chicago: U. of Chicago Press, 68th Yearbook, Part II, National Society for the Study of Education, pp. 370-390.

Taba, Hilda. Cognitive Functioning in Elementary School Children. San Francisco: San Francisco State College, United States Office of Education, Cooperative Research Project No. 2404, 1966.

Taba, Hilda. Curriculum Development: Theory and Practice. New York: Harcourt, Brace and World, Inc., 1962.

"TABA Technical Report Number 6," Portland: Northwest Regional Educational Laboratory, September, 1971.

"The Use and Implications of Program 100's Instructional Systems." Portland: Northwest Regional Education Laboratory, May, 1970,b.

APPENDIX A

LETTER OF INQUIRY REQUESTING NAMES AND ADDRESSES OF RUPS AND TABA TRAINEES

WASHINGTON STATE UNIVERSITY
PULLMAN, WASHINGTON 99163

DEPARTMENT OF EDUCATION

The Department of Education is sponsoring a research study entitled, "Evaluation of Instructional Systems RUPS and TABA." These programs were offered as extension courses, as regular college courses, or as special workshops for teachers. The exact program titles are "The Development of Higher Level Thinking Abilities" (TABA) and "Research Utilizing Problem Solving" (RUPS). Both programs were developed and disseminated by the Northwest Regional Educational Laboratory located in Portland. To complete this much needed study, we must mail questionnaires to all persons who have completed either of these two programs through your institution during the time period of June 1969 through August 1970.

We kindly request that you send us the names and addresses of all such persons who completed these programs during the period specified.

If you have any questions about the programs, the name of the person who coordinated the courses for your institution is included on the attached sheet. If necessary, course numbers, credit hours and other information could be provided to you by the Chairman of your Education Department. Please mail this information on the forms provided and in the self-addressed stamped return envelope to:

Phillip M. O'Neill
Project 68 Director
4515 N. A Street
Spokane, WA 99205

Thank you very much for your cooperation.

Respectfully yours,

Donald C. Orlich
Professor of Education

Phillip M. O'Neill
Project 68 Director

APPENDIX B

TABA TRAINER AND TABA TRAINEE COVER LETTERS AND QUESTIONNAIRES

WASHINGTON STATE UNIVERSITY

PULLMAN, WASHINGTON 99163

DEPARTMENT OF EDUCATION

Washington State University, in cooperation with the Northwest Regional Educational Laboratory and under the sponsorship of the United States Office of Education, is conducting a research study entitled "Evaluation of Instructional Systems RUPS and TABA." The purposes of this study are to:

1. Determine the extent of use of these systems within the area served by the Northwest Regional Educational Laboratory: Alaska, Idaho, Montana, Oregon, and Washington.

2. Establish the degree of conformity between the teacher training programs being taught by TABA and RUPS trainers and the instructional systems being produced by the Laboratory.

3. Analyze data gathered by instruments which draw generalizations and conclusions concerning the value of the system for teacher training.

Before a survey of trainees can be undertaken, it is necessary that the qualified trainers like yourself respond to the enclosed instruments. Would you help us with this study by completing one of the enclosed checklists for each TABA training session which you conducted between target dates June 1, 1969 and August 30, 1970? Please return the forms as soon as possible in the enclosed stamped, self-addressed envelope. Your help is very much needed and appreciated.

Respectfully,

Phillip Mike O'Neill
Director
Project 68

Enclosures

PMO:DCO:clb

Training session dates: From ___|___|___ To ___|___|___ Place _____

Approximate Number of Trainees _____

1. Type of training session (Please Check)
   1. Intensive Workshop ____ 2. Protracted Extension Course ____ 3. Regular College Course ____

2. During this training session did you omit or modify any of the subsets for the three principal components of TABA?
   1. Yes ____ 2. No ____
   If you answered Yes to the above please complete the rest of this page. Write any comments that you wish on the back of this sheet. Reference subset number. Please check appropriate block.

Subset	Subset or Component Name	Modification Status			
		(1) Omitted	(2) Changed	(3) Used as Presented	Comments on Back? (Yes or No)
	Concept Diagnosis				
1	Sensitivity				
2	Processes				
3	Exercises				
4	Demonstration				
5	Typescript Analysis				
6	Laboratory Experience				
	Interpretation of Data				
7	Sensitivity				
8	Processes				
9	Exercises				
10	Laboratory Experience				
11	Films				
	Application of Knowledge				
12	Sensitivity				
13	Processes				
14	Exercises				
15	Demonstration				
16	Laboratory Experience				

3. Please comment on what you think is the value of the TABA system. What improvements do you think could be made? Use back of sheet.

WASHINGTON STATE UNIVERSITY
PULLMAN, WASHINGTON 99163

DEPARTMENT OF EDUCATION

Washington State University, in cooperation with the Northwest Regional Educational Laboratory, is sponsoring a research study entitled "Evaluation of Instructional Systems RUPS and TABA." You are listed by your college as having received training under the system "Development of Higher Level Thinking Abilities" (TABA). We know that the only ones who can accurately assess this program are those like yourself who have had the opportunity to take this training, and who have had the experience of applying your training.

You can help us in this badly needed research by completing the enclosed checklist and returning it to us in the enclosed stamped envelope. Your prompt response will help us to complete this study, which will assist your school district, your college, and the Laboratory in their planning for future teacher education programs.

Sincerely yours,

Phillip Michael O'Neill
Project Director

As we have no record of your present position, check each statement below:

I. The majority of my educational duties are as a:

1. Teacher _____
2. Counselor _____
3. Administrator _____
4. Other (specify) _____

If you did not check No. 1 above, that is if the majority of your educational duties are not as a classroom teacher, disregard the questions and statements below, but feel free to make any comments that you wish regarding your training in the spaces provided and return it to us.

All teachers please complete the following items:

II. The majority of my classroom duties are in the grade level:

1. Grades 1-3 _____
2. Grades 4-6 _____
3. Grades 7-8 _____
4. Grades 9-12 _____
5. College _____
6. Other (specify) _____

Comments

III. Your sex:

1. Male _____
2. Female _____

IV. I teach in a school that would be classified as:

1. Mainly rural _____
2. Mainly urban _____

Comments

V. At the time of your training, how much teaching experience had you had?

1. None _____
2. One year _____
3. Two to three years _____
4. Four to five years _____
5. Six to 10 years _____
6. 11 or more years _____

Comments

VI. Under what conditions did you receive your training?

1. Intensive workshop _____
2. Protracted through extension course _____
3. During regular college course _____

Comments

VII. At the time of your training, did you have a class of children available to you so that you could try out the principles and ideas presented by the instructor?

1. Yes _____
2. No _____

Comments

VIII. Please respond to each of the following statements as you perceive yourself using the processes and ideas learned during your TABA training.

A. To what extent have you used the processes and ideas in "Concept Diagnosis" in your classroom since you received your TABA training?

1. Never _____
2. Once since the training _____
3. A few times _____
4. Once a month _____
5. Once a week _____
6. One or more times daily _____

Comments

B. To what extent have you used the processes and ideas in "Interpretation of Data" in your classroom since you received your TABA training?

1. Never _____
2. Once since the training _____
3. A few times _____
4. Once a month _____
5. Once a week _____
6. One or more times daily _____

Comments

(over)

C. To what extent have you used the processes and ideas in "Application of Knowledge" in your classroom since you received your TABA training?

1. Never _____ Comments
2. Once since the training _____
3. A few times _____
4. Once a month _____
5. Once a week _____
6. One or more times daily _____

IX. Please add any additional comments which you may have below.

_____

_____

_____

_____

_____

_____

_____

_____

APPENDIX C

RUPS TRAINER AND TRAINEE COVER LETTERS AND QUESTIONNAIRES

WASHINGTON STATE UNIVERSITY

PULLMAN, WASHINGTON 99163

DEPARTMENT OF EDUCATION

Washington State University, in cooperation with the Northwest Regional Educational Laboratory and under the sponsorship of the United States Office of Education, is conducting a research study entitled "Evaluation of Instructional Systems RUPS and TABA." The purposes of this study are to:

1. Determine the extent of use of these systems within the area served by the Northwest Regional Educational Laboratory: Alaska, Idaho, Montana, Oregon, and Washington.

2. Establish the degree of conformity between the teacher training programs being taught by RUPS and TABA trainers and the instructional programs being produced by the Laboratory.

3. Analyze data gathered by instruments which draw generalizations and conclusions concerning the value of the systems for teacher training.

Before the survey of trainees can be undertaken, it is necessary that the qualified trainers like yourself respond to the enclosed instruments. Would you help us with this study by completing one of the enclosed checklists for each RUPS training session which you conducted between the target dates June 1, 1969 and August 30, 1970? Please return your lists as soon as possible in the enclosed stamped, self-addressed envelope. Your help is very much needed and appreciated.

Respectfully,

Phillip Mike O'Neill
Director
Project 68

Enclosures

PMO:DCO:clb

Training session dates: From ___/___/___ To ___/___/___ Place _____

Approximate Number of Trainees _____

1. During the course of this workshop did you omit or modify any of the subsets of the RUPS instructional system as developed and disseminated by the Northwest Regional Educational Laboratory? 1. Yes ____ 2. No ____
If you answered Yes to the above please complete the rest of this page. Write any comments that you wish on the back of this sheet. Reference Subset Letter. Please check appropriate block.

Subset	Subset Name	Modification Status			
		(1) Omitted	(2) Changed	(3) Used as Presented	Comments on Back (Yes or No)
A	Orientation				
B	Identifying the Problem				
C	Using Research About the Classroom				
D	Using the Force Field Technique				
E	Diagnosing Teamwork Relationships				
F	Data Gathering Skills				
G	Selecting Tools for Data Gathering				
H	Spotting Major Results in Data				
I	Group Member Ratings				
J	The Feedback Concept				
K	Deriving Implication & Action Alternatives				
L	Planning for Action				
M	Small Group Dynamics				
N	Planning Your Back-Home RUPS Project				
O	Follow-Through No. 1				
P	Follow-Through No. 2				

2. Please comment on what you think is the value of the RUPS system for teacher training. What improvements do you think could be made? Use back of sheet if needed.

WASHINGTON STATE UNIVERSITY
PULLMAN, WASHINGTON 99163

DEPARTMENT OF EDUCATION

Washington State University, in cooperation with the Northwest Regional Educational Laboratory, is sponsoring a research study entitled "Evaluation of Instructional Systems RUPS and TABA." You are listed by your college as having received training under the system "Research Utilizing Problem Solving" (RUPS). We know that the only ones who can accurately assess this program are those like yourself who have had the opportunity to take this training, and who have had the experience of applying your training.

You can help us in this badly needed research by completing the enclosed checklist and returning it in the enclosed stamped envelope. Your prompt response will help to complete this study, which will assist your school district, your college, and the Laboratory in their planning for future teacher education programs. A brief summary of the RUPS training is enclosed for your review.

Sincerely yours,

Phillip Michael O'Neill
Project Director

As we have no record of your present position, check each statement below:

I. The majority of my educational duties are as a:

1. Teacher _____
2. Counselor _____
3. Administrator _____
4. Other (specify) _____

If you did not check No. 1 above, that is if the majority of your educational duties are not as a classroom teacher, disregard the questions and statements below, but feel free to make any comments that you wish regarding your training in the spaces provided and return it to us.

All teachers please complete the following items:

II. The majority of my classroom duties are in the grade level:

1. Grades 1-3 _____
2. Grades 4-6 _____
3. Grades 7-8 _____
4. Grades 9-12 _____
5. College _____
6. Other (specify) _____

Comments

III. Your sex:

1. Male _____
2. Female _____

IV. I teach in a school that would be classified as:

1. Mainly rural _____
2. Mainly urban _____

Comments

V. At the time of your training, how much teaching experience had you had?

1. None _____
2. One year _____
3. Two or three years _____
4. Four or five years _____
5. Six to 10 years _____
6. 11 or more years _____

Comments

VI. Under what conditions did you receive your training?

1. Intensive workshop _____
2. Protracted through extension course _____
3. During regular college course _____

Comments

VII. At the time of your training, did you have a class of children available to you so that you could try out the principles and ideas presented by the instructor?

1. Yes _____
2. No _____

Comments

VIII. Please respond to each of the following statements as you perceive yourself using the principles and techniques of your RUPS training in your work as a classroom teacher.

A. I have used the RUPS procedure for identifying problems in the classroom.

1. Never _____
2. Once since the training _____
3. A few times _____
4. Once a month _____
5. Once a week _____

Comments

B. I have used the RUPS procedure for utilizing research about the classroom.

1. Never _____
2. Once since the training _____
3. A few times _____
4. Once a month _____
5. Once a week _____

Comments

C. I have used the RUPS technique of Force Field analysis with my classes.

1. Never _____
2. Once since the training _____
3. A few times _____
4. Once a month _____
5. Once a week _____

Comments

(over)

D. I have used the RUPS technique for diagnosing teamwork relationships.
1. Never _____ Comments
2. Once since the training _____
3. A few times _____
4. Once a month _____
5. Once a week _____

E. I have used RUPS data-gathering skills in the classroom.
1. Never _____ Comments
2. Once since the training _____
3. A few times _____
4. Once a month _____
5. Once a week _____

F. I have selected tools for data-gathering according to the RUPS procedure.
1. Never _____ Comments
2. Once since the training _____
3. A few times _____
4. Once a month _____
5. Once a week _____

G. I have derived implications and alternatives from research findings using RUPS procedures.
1. Never _____ Comments
2. Once since the training _____
3. A few times _____
4. Once a month _____
5. Once a week _____

H. I have used RUPS skills in planning for action in the classroom.
1. Never _____ Comments
2. Once since the training _____
3. A few times _____
4. Once a month _____
5. Once a week _____

I. I have used the RUPS technique of small group dynamics within my classroom.
1. Never _____ Comments
2. Once since the training _____
3. A few times _____
4. Once a month _____
5. Once a week _____

IX. Please check one of the following statements concerning how you feel about the RUPS training program.

1. I think the RUPS program was a waste of time. _____
2. I think it had some small value to me as a person. _____
3. I think it was valuable to myself and other persons in the workshop. _____
4. I think it is a very valuable program. _____

X. Please add any additional comments which you may have below.

_____

_____

_____

_____

_____

_____

_____

_____

APPENDIX D

RUPS TRAINEE INSERT

Here is a brief outline of the steps in RUPS training. Each item on the questionnaire to which you will respond is described below:

Item VIII

A. Participants wrote a statement of the problems in Mrs. Jones' classroom. "Paraphrasing" skills were introduced.

B. Participants were asked to rewrite problem statements incorporating insights from Research Findings handouts.

C. Participants were asked to write a force field diagnosis of Mrs. Jones' problems and to compare it with Mrs. Jones' own force field diagnosis.

D. Participants worked in trios developing force field diagrams to increase effectiveness of trio's teamwork.

E. Participants rated and ranked force field items for data gathering.

F. Participants explored application of force field analysis to selection of different kinds of data gathering instruments such as Complete a Sentence or Preferred a Choice.

G. Participants analyzed major results of applying data gathering instruments with the view of revising the force field.

H. Participants identified and wrote questions for getting information required in two categories: 1) supportive resources, 2) management considerations; and performed a force field analysis on the first action step in Mrs. Jones' action plan.

I. Participants read the RUPS handout Five Dimensions of Group Growth, and scanned ideas in Diagnosing Classroom Learning Environments, and then rated and interpreted their own small group's growth.

APPENDIX E

NORTHWEST REGIONAL EDUCATIONAL LABORATORY COVER LETTER

Northwest
Regional
Educational
Laboratory

400 Lindsay Building · 710 S.W. Second Avenue
Portland, Oregon 97204 · Telephone (503) 224-3650

September 29, 1970

Mr. Phillip M. O'Neill
4515 North A Street
Spokane, Washington
99205

Dear Mr. O'Neill:

The Research and Evaluation Division of the Northwest Regional Educational Laboratory is supportive of and open to collaboration with your study of utilization and spread of training in Research Utilizing Problem Solving and Higher Level Thinking Abilities as these have been taught by instructors in your institution.

We have already provided you with instruments developed specifically to test cognitive and/or behavioral performance in the key conceptual and action skill dimensions of the training program and offered to make available cognitive data from our own evaluation studies. If you decide to use these materials data reduction formats, and codes will be made available.

We expect in return, that you will assess the degree of conformity of the teaching program to the instructional system produced by this Laboratory. We make no claims as to outcome if the instruction deviates from the system as designed and tested. While we remain willing to assist others in evaluating variations and deviations we insist that such variations and changes be clearly described and that outcomes be related to the training as given rather than to our product when it is not our product which is being utilized.

Further, we also expect that materials provided by the Lab be credited to the Lab and that three copies of the written report be provided for our files and reference shelves.

We believe the work you are doing is important and will assist you to the best of our ability within the limits of ethics and honesty.

Sincerely,

Jean W. Butman, Ph.d
Coordinator
Research and Evaluation
Program 100

JWB/lob

APPENDIX F

COMMENTS BY RESPONDENTS--TABA

Comments related to "Recommendations Based Upon 'Comments' by Respondents," (Chapter II, Number 1)

I need a course in TABA alone in order to really understand and utilize it. The course I took covered too many educational innovations to be really effective.

We who have taken the course, need more intensified work in this area.

I found it very helpful in grouping and showing relationships between other subjects. It's extremely important that those taking the class have an opportunity to practice those methods with a class of children. I found that it took almost a year before I felt comfortable using the methods as a part of my everyday teaching techniques.

Now that I have had some background and time to experiment with the questioning technique, I would like to take the class again from a teacher who knows how to use it with young children.

The program was presented with too much theory, and not enough actual practical application for use in the classroom--would like to have the course again because I feel it had much to offer if presented more practically.

I have found the TABA processes a very useful tool in my teaching. It helps me help the children to think and make their own decisions. I find I can apply it very easily. I do think you need to keep refreshed of the methods to be effective.

I would like very much to have a refresher course in Hilda Taba techniques at the same time of year that I am teaching. I think I could learn to use it much more effectively.

I feel parts of the TABA process are valuable, but extremely time consuming--particularly I am referring to the guide Anglo-America published by Contra Costa County, California. I also feel a need of more training, or a "refresher" course to keep the questioning strategies or purposes fresh in my mind.

Comments Related to "Recommendations Based Upon 'Comments' by Respondents," (Chapter II, Number 2)

Although I do not do a complete TABA task, I do feel that I phrase questions much better than I did before. It is a valuable course. I sometimes think it would be of more value after a person has taught a year, then take TABA.

The TABA training considerably changed my teaching style to an inquiry and discussion form. I am also aware of questioning levels and make strategy moves when discussion shows a necessity.

Most of these processes and ideas I had already been using. The course only helped to refine my questions and allow me to zero in on my objectives better.

I have attempted to apply TABA questioning procedures in my reading methods classes to the extent of helping college students develop the ability to question children at increasingly higher levels of thinking.

The training was most useful to me in terms of sensitivity to the different kinds of questions.

Since completing TABA I am much more conscious of questioning techniques used by teachers in the classroom.

I use the section pertaining to questioning strategies and procedures frequently. I also use the material that relates to concept and generalization formation frequently.

Some of the Student Teachers have had a Strategies Course which have helped them in student teaching. Different strategies have been discussed at length in Seminar. Effective Questioning has been most helpful used in Seminars along with TABA.

I personally feel that those students who have been involved in the Strategies Course plus Effective Questioning have become much better prospective teachers.

Comments Related to "Recommendations Based Upon 'Comments' by Respondents," (Chapter II, Number 3)

Lack of time for personal preparation has prevented me from using what I learned more than I have. Even my summers have been so full that I have been unable to plan and carry out what I would like to do in class.

I do not use the knowledge or processes exactly as they were taught to me all the time. I do however use a variation or variations of these tasks frequently.

I felt that "Development of Higher Level Thinking" was the best course I took while receiving my master's degree.

It has helped me organize my social studies units as well as sequential steps in teaching math. Discussion in weekly reader and filmstrip and moving pictures have been enhanced by the training I have received in the TABA program.

I feel that I use TABA techniques more often than I realize. It becomes a part of classroom life-style.

I would recommend the training, but I would also recommend more teaching experience before taking the course.

I am teaching in an "open-space" school and find myself using my TABA training more now than before. I would say that it lends itself more to this type of teaching.

I plan to set up an extension course called Higher Level Thinking Abilities for teachers in the summer quarters here at Cal State.

I have a class of 28 high achieving second graders who seem to gain greatly from the TABA method. It is even hard for me to believe that children this age can get so enthused as my class has in the study of whales--mammals and the comparison to fish etc. Their parents and the librarians are amazed at their interest and enthusiasm. My only problem is lack of enough time.
This method draws out even the most shy child and keeps the highly aggressive ones subdued and willing to share knowledge.

I've had two classes of TABA and one of RUPS. I feel they are extremely worthwhile, and the application of the techniques I learned have enabled me to view many of my students in a completely different light. Many who do not respond well on pencil and paper tasks do very well in these discussions. I have graded them on their performance (the ones who perform well), and this has given them a renewed or new sense of worth and achievement.

Some of the people who participated in the program with me had very negative attitudes concerning the value of the program. It is my belief that they had those attitudes BEFORE they began and that their negative attitudes were a limiting factor. I personally learned a great deal from the experience and truly feel that I am a better teacher because of the program. We must not ignore the negative comments however. The attitude of the participant is as important as the attitude of the administrator. To effectively put the program across you had better have trainers who can "sell."

I am currently teaching accounting and computer programming. The bulk of the material in these courses is highly technical, but I have found myself using the approach in problem definition and analysis. I think I can sum up the results of my exposure to TABA in one sentence: My approach to teaching has shifted from the direct to the indirect.

The oral approach emphasized does help to bring out some of the weaker students. This is especially true in reviewing or introducing a new idea using task I. Task II is good in summarizing a unit or comparing groups of peoples studied.

I thoroughly enjoyed the course and I am sure that I would have made much more use of the new ideas if I had not had so many years of experience and was not so "set" in my own way of doing things.

Although my work has been as an administrator since my training, it has been beneficial to me in helping teachers with classroom problems. It is unfortunate that most teachers do not have the opportunity to receive this training until they begin graduate work. I really think the training should be required and used in the undergraduate program. We need to move away from the "cognitive memory" emphasis and allow children to develop their true thinking abilities.

I believe the TABA training is invaluable. The idea of trusting the child (student) to find and recognize truth--without the teacher's evaluation is to me the most worthwhile aspect of the method. My thinking centers on the autonomous learner. I believe TABA makes a strong contribution here.

I've found these concepts work, but you need time to develop them. One year is not sufficient time. Each year these systems are used the more valuable they become. To be properly used a two - three year period really helps. In the program we are now using, I did not feel success until the second year. Lots of practice is the key.

I found that using the TABA method provided the opportunity to determine how much or what the students knew about a given topic, followed by research of what they needed to know then compiling the total data in a summarizing form. I find that children remember much better the essential facts by this method. The children enjoyed this type of instruction, and I think learning should be fun.

I feel in Kindergarten we use the TABA training very often in a simplified form. Our class members in the TABA workshop made the difference. There was a wide range of interests and a variety of ideas vocalized. I was fortunate to have been with this group.

I used this technique mostly in the Social Studies area, e.g. opening question would be: "What do you know about the Indians of the Pacific Northwest?" The students would respond and I would write down "exactly" what they said (commenting after it was written--"Is this the way you wanted me to write your comment?" After we listed many things (50-100) we would go to phase II. In the second phase the children would scan all the comments offered, (usually written on butcher paper and hung in the room for all to see). The opening question would be: "Are there any comments that seem to go together or look like they could be in a group with other similar ones?" After we placed each item into a group we would choose a title for that group, e.g. Indian Games, Indian Food, Indian Shelter, Indian Weapons, etc. After everything was classed--we would begin investigating our statements, gathering resource materials and exploring the general classifications. Individual students would report on one area that was of special interest to them (to the class). At the end of the investigation we would make a general statement about the Indians of the P.N.W.--something to the effect-- "The Indians of the P.N.W. depended upon their environment for food, shelter, clothing, transportation, etc. This researching usually took several months. Art projects, creative writing, reading,--in essence all other subject areas could be related here. This would lead the way for the study of the Pioneers-- approached in a similar way. I found this technique to be truly a process of discovery for the students and they really enjoyed it.

I have shared these processes and ideas with several of my student teachers in social studies, and they have used them successfully.

The interest and participation was really high. I think children learn more this way and really get involved.

I believe that these "learning process" techniques are the very essence of education and are given much too little emphasis in college--teaching education--courses. We need many more communication skills, questioning skills, learning process type courses in teacher education and in-service training programs!

I think "Development of Higher Level Thinking Abilities" is one of the most useful courses I have ever taken. I took the course nearly three years ago, but still am aware of how useful it is in the classroom, and how much it helps me be a better teacher. It's very hard to say how often I use TABA principles-- at first I was well aware when I was trying to apply her principles-- now I'm hardly aware at all. I think the whole concept has become a part of the kind of teacher I am.

For the first time in my teaching experience the students are solving their own problems through discussion and for the first time the teacher is listening--what a change for me. I actually schedule times for listening. I no longer feel the need to lecture and exhort.

We are using cooperative teaching techniques in our Language Arts Block--many problems yet to be solved, but I believe we are beginning to communicate as a faculty. At least I'm going to keep trying to sell the faculty that we have to solve problems together if we expect our students to learn to do this. TABA has changed my teaching methods more than any course I have ever taken.

APPENDIX G

COMMENTS BY RESPONDENTS--RUPS

Two hundred eleven RUPS respondents wrote comments in the space provided. Many others wrote comments for specific Questionnaire items (see Appendix D). The comments are arranged in four categories which correspond to specific items under "Recommendations Based Upon 'Comments' by Respondents." They were selected by the investigator as being pertinent, typical or interesting.

Comments related to"Observations and Recommendations Based Upon 'Comments' by Respondents--RUPS," (Chapter III, Number 1)

The intensive experience was interesting, but no follow-up occurred. Therefore a useful tool went into disuse permanently because too much training was given too quickly.

This program could have been more successful if we would have had more time.

Too much material was presented for the time allowed.

I would like now to be involved in a follow-up program--reviewing some of the concepts. After using it I'm sure there are some things I had missed and a refresher would be most helpful.

The purpose of the lessons were not clear. In many instances the directions led one to think that the objective was to accomplish a specific task; afterwards it was revealed that the task was of secondary importance--the object was to determine how well one worked in the group.

I think that this was given to us too fast without sufficient time to use each idea before proceeding to the other.

I think we should have had more time and a follow-up or more detailed course.

The workshop I attended was too concentrated and too far removed from a classroom situation. It was too easy to forget what was learned!

I have applied these in a motivation program and have found that I am better equipped to help teachers operate more effective groups.

The RUPS program is good. However, the intensive workshop of two and one-half days is not enough time for instructional purposes.

My team skills were greatly improved. Also helps communication. I would like to participate in a similar activity at least once a year to keep skills sharp.

I felt the workshop was valuable and would recommend it for other teachers. I would like to attend the workshop again to refresh myself with the material.

I feel the program has merit but it is just a one shot situation. If we intend to affect change in behavior more activities are needed for growth by the individual involved over a longer period of time.

Like any such technique it is valuable if time permits to set it up, proceed through the program, and make a proper evaluation. I have had little time because of classroom duties in and out of the classroom. If the program could be simplified it would have more use for everyday classroom technique.

Not enough training in the technique to really understand its use.

I think there should be more follow-up and a second workshop to help reinforce would be wonderful. A good program!

I do not feel that a two or three day intensive study without follow-up makes for a valid learning situation--especially when the area of study is entirely new.

I went through two sessions of RUPS and felt it had value --but needed the experience of practicing some skills which were not clear to me in the presentation. (1) Data gathering skills, (2) action planning.

Ours was an intensive course of three days. Some follow-up or refresher would be well advised for that type I believe.

There should be provision for follow-up sessions after the workshop or regular course: This would encourage people to use the techniques and tools; also, provide more assistance for people who are really dedicated to self-improvement.

I would like to see a one-day follow-up workshop on RUPS about three years after one took the RUPS training sessions. This would help renew one's background in the RUPS program. I have forgotten most of the ideas of the RUPS program at this point.

The RUPS system has considerable merit and could be of even greater value if the classroom teacher had a lengthened training period thus providing a more practical base for the application of techniques and principles involved in the program.

Missing, and I feel vital, is follow-up assistance by an old hand to snowball the use of the technique among novices who are easily re-rutted, i.e. return to old habits. HELP on this, please!

Comments related to"Observations and Recommendations Based Upon 'Comments' by Respondents--RUPS," (Chapter III, Number 2)

As an administrator I have not used skills in a classroom but have on occasion used Force Field approach to problem solving and have used elements of group dynamics techniques.

Force Field diagnosis is a remarkably useful tool.

I have used the Force Field technique with building management teams as a part of efforts directed toward solving operational problems at building level.

Good session--have used Force Field technique in problem solving alternative selection situations.

The Force Field procedure is useful in determining weightedness of solutions to current problems. I have not otherwise used RUPS technique to this point.

I haven't followed the RUPS program as it is written. Certain RUPS techniques and principles have affected my teaching indirectly. The Force Field diagnosis is most usable and helpful.

The RUPS training was most beneficial, however the personal style and personality of the trainer (RUPS instructor) is very important. The Force Field diagnosis, diagrams and analysis has been very profitable for me. The use of Force Field analysis as decision making has great potential.

Comments related to"Observations and Recommendations Based Upon 'Comments' by Respondents--RUPS," (Chapter III, Number 3)

Small group dynamics within my classroom helped passive students take part in learning process.

We have employed some of the RUPS training in our teams.

I gained new insights and techniques relative to working with groups.

I have organized my class to work in the triad. I have used the data gathering process of observation and group conference. As a result of RUPS I try to observe each child objectively with the goal of understanding him in a more rational way.

I think RUPS training is particularly good for people who will be doing team work. Group work becomes more productive.

These comments were selected by the investigator as being of general interest.

Much of the RUPS is used in my methods classes, both used as a technique in my teaching but also teaching the technique for the teacher-candidate to use in the future.

An excellent follow-up of the RUPS program was Communication Techniques offered by C.W.S.C.

Being an aide, I have not used the training in classrooms, except the paraphrasing skills which I find most useful with under-achievers and slow learners.

I used the RUPS approach in analyzing and working out school-wide problems with the teachers in our K-8 school.

I feel the Interpersonal Communications program should be a prerequisite for RUPS. The divisions in groups--those who had IPC and those without was quite drastic. RUPS assumes that those taking training either have or can easily gain those needed skills. --NOT SO! Also feel TABA is good lead into RUPS.

Occasionally with my team of Evaluation Specialists, we have used some of the RUPS techniques with variations. This serves to get at the root of problem and helps to design methods of evaluating schools or support services. The system is especially designed for teachers and can be helpful when sufficient confidence is developed in the use of the system.

The techniques learned in the RUPS training program have been used in relation to supervising the Montana vocational education program for the disadvantaged and handicapped.

The principles and techniques of RUPS have been used mostly by me in faculty evaluation, helping team teaching communications and helping beginning teachers learn to listen and communicate with their students.

I have used RUPS tools in other teacher's (student and regular) to help solve problems. I also use RUPS tools in my seminar for student teachers as a feedback about how the sessions are going.

I have shown and used RUPS techniques with the 8th grade and am presently using it with a Junior-Senior class in Civics wherein we are using the technique for purposeful problem solving. Each experience makes it more worthwhile for having taken the training.

I was very surprised how the kindergarten level people just became so enthusiastic when ever we had a RUPS activity. They asked when we would do it again.

I have team taught the RUPS course three times and have used adaptations of the course in some of my college classes. The techniques are valuable only if they are utilized soon after the course.

I found it very helpful to have received an additional copy of each of the work sheets used during the workshop--this made it easier in utilizing the approach later.

Of special benefit from the RUPS training was diagnosing classroom behavior more objectively, analyzing aggressive behavior and learning how to channel into more useful or positive activities. Problem solving is being done all the time. RUPS helped with techniques and procedures.